

WAPA Annual Customer Meeting 2018

Dec. 10, 2018

8:30 am – noon MST

Hilton Garden Inn, Downtown Denver

Welcome and Introductions

Teresa Waugh
Chief Public Affairs Officer

Opening Remarks

Mark A. Gabriel
Administrator and Chief Executive Officer

FY 2018 accomplishments

Completed the Power Repayment Study

Held rates flat for nine years for 25% of customers

Increased net market revenues by \$42M in SPP

Returned \$16M to customers after settling 17-year-old litigation

Supported the delisting of two fish, one plant species

Refreshed WAPA's core values

\$70+ million in cost avoidance through CPI program

Hosted Technology and Security Symposium

Participated in GridEx

Expanded Hoover hydro to reach 58 new allottees

Lowered rates two years in a row for 50% of customers

Generated 27,308 GWh of energy, or 106% of average

Resolved 97% of cyber issues in two days or less

Trained and added real-time engineers to operations

Responded to Carr Fire in northern California

Expanded transparency efforts

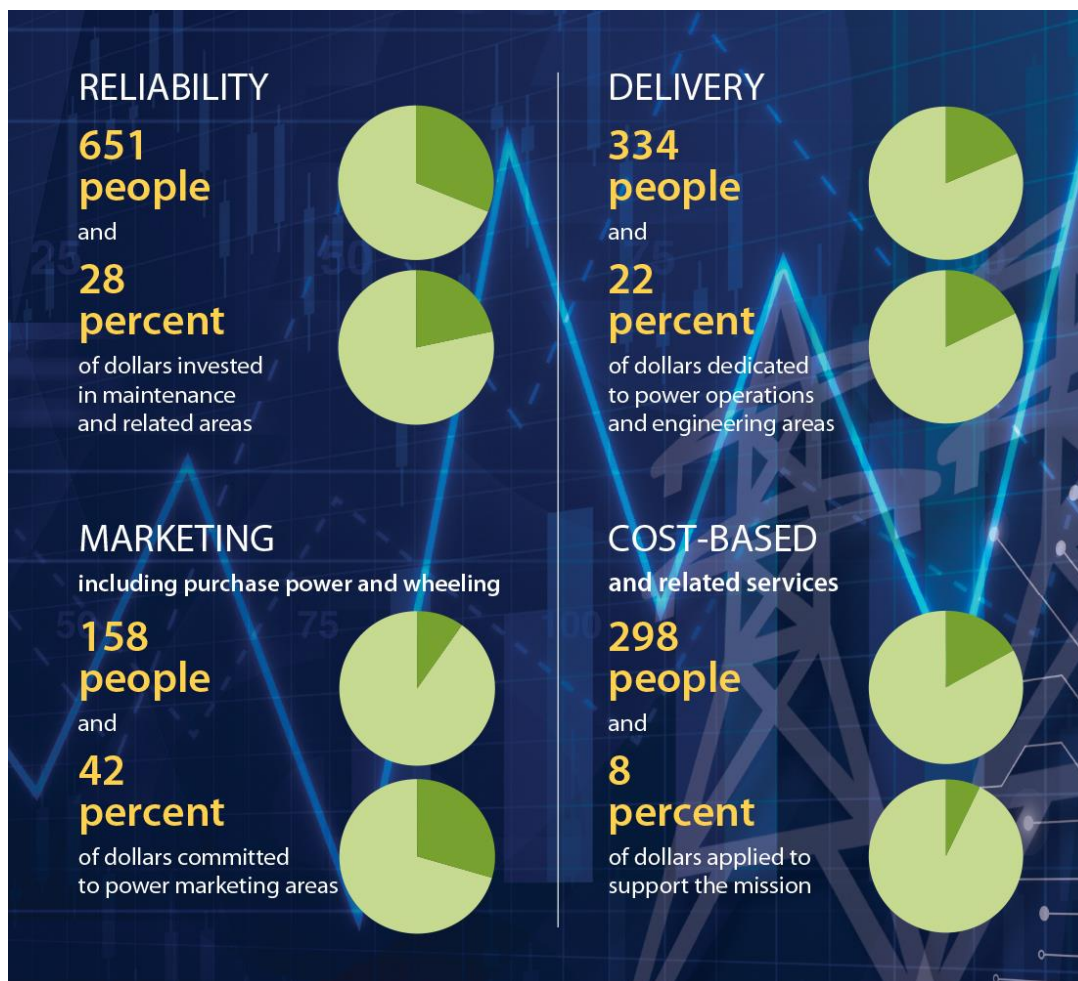
Responded to hurricanes in the USVI and Puerto Rico

Responded to volcano Kilauea on Hawaii













Selected new Reliability Coordinators

Welcomed 57th powerplant to our system

Mission breakout

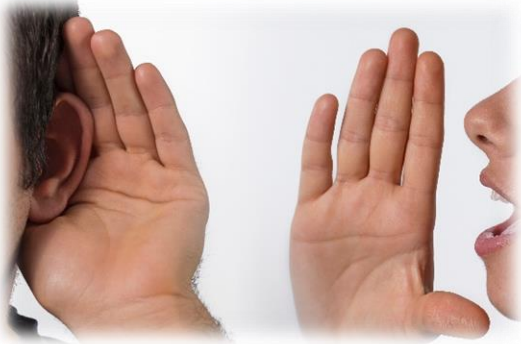


FEVS results

Question	FY18 Positive	5-year trend (FY14 thru FY18)
Response Rates	65.0%	
Employee Engagement: Overall	70.7%	
Employee Engagement: Leaders Lead	56.6%	
Employee Engagement: Supervisors	78.6%	
Employee Engagement: Intrinsic Work Experience	76.8%	
Global Satisfaction	71.8%	
New IQ: Overall	63.6%	
New IQ: Fair	50.7%	
New IQ: Open	61.0%	
New IQ: Cooperative	59.3%	
New IQ: Supportive	80.6%	
New IQ: Empowering	66.6%	

Core Values

**Listen to understand,
speak with purpose**



Seek. Share. Partner.



**Be curious, learn more,
do better. Repeat.**



**Respect self, others
and environment.**



**Do what is right.
Do what is safe.**

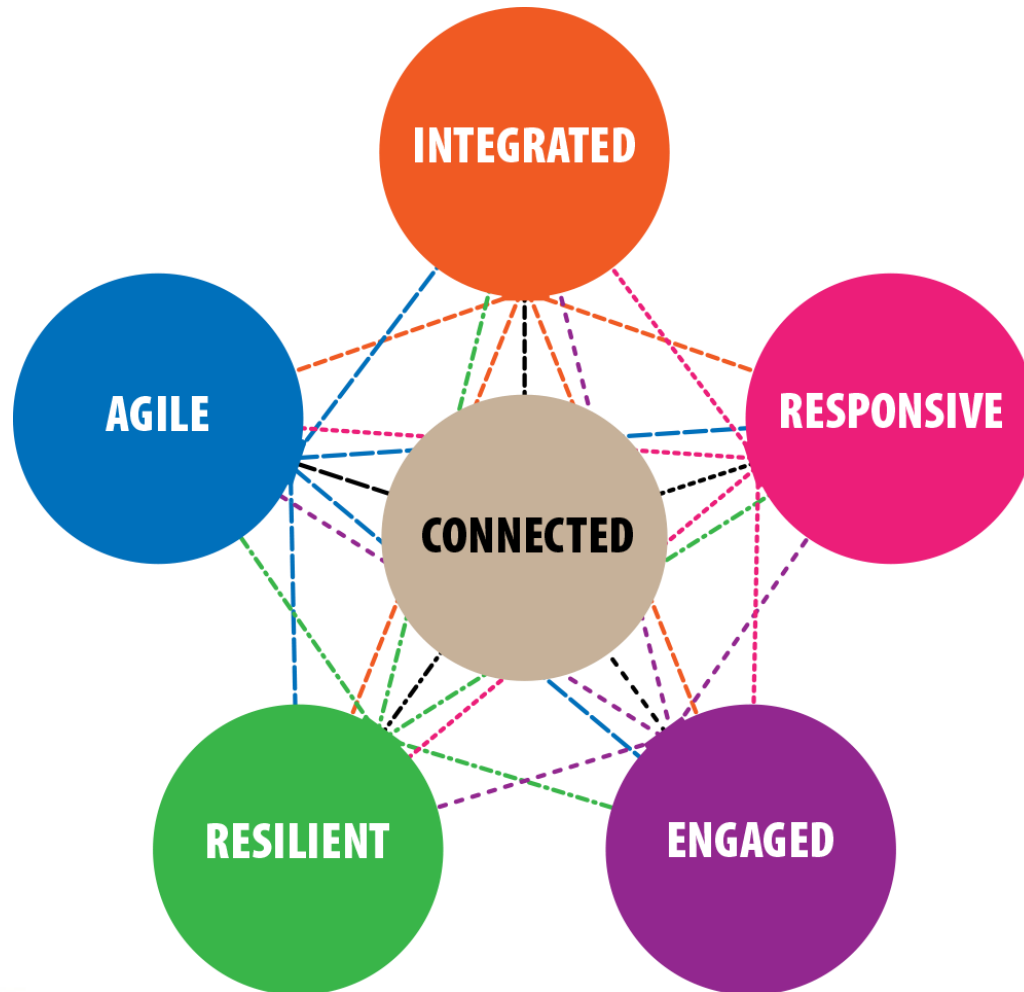


**Serve like your lights
depend on it.**

Preparing for the future



A connected WAPA

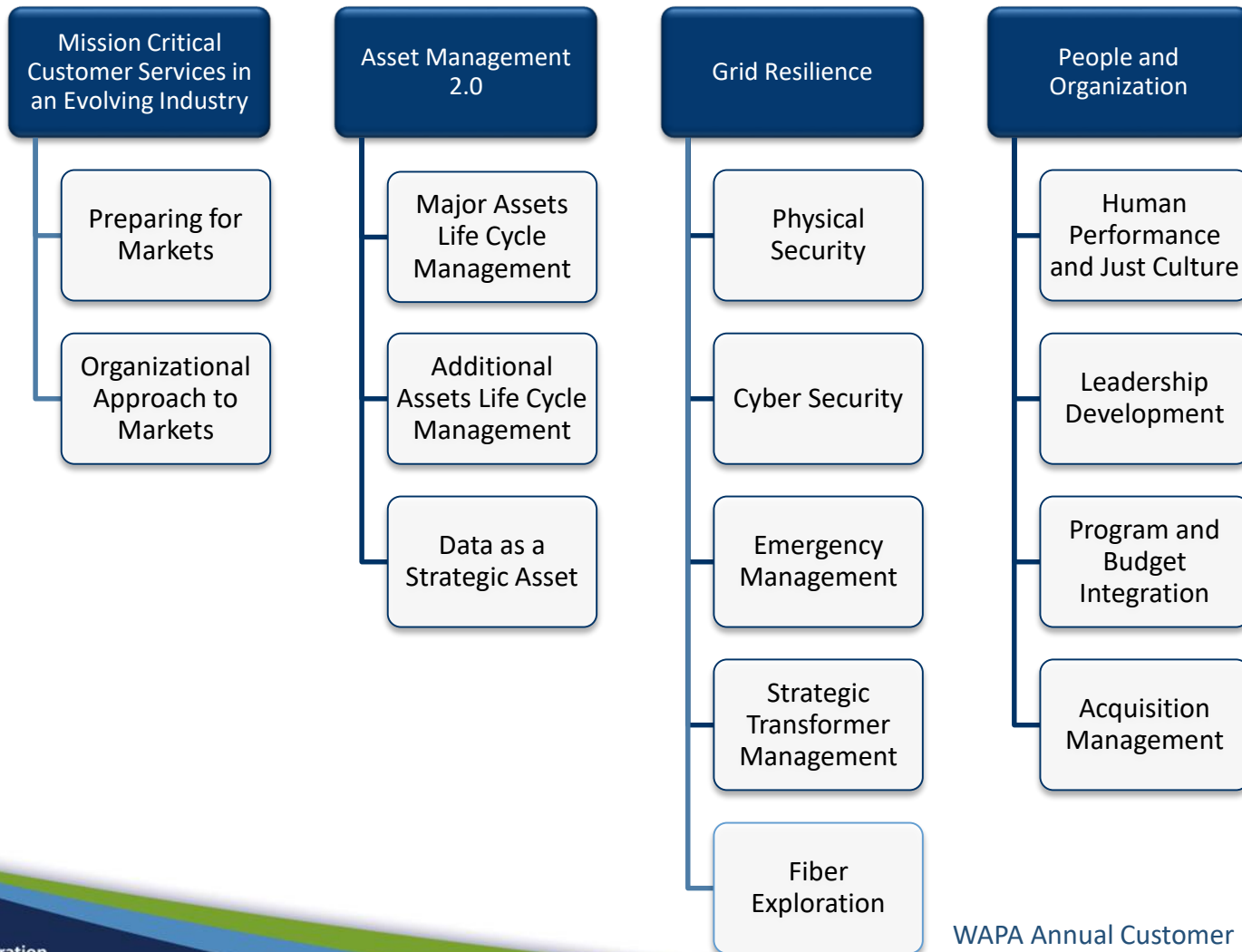


Tactical Action Plan & Roadmap

- Third TAP since 2014
- Activities & areas of focus for 2-3 years to progress along Roadmap
- Basis of annual performance targets



2019 Tactical Action Plan



Human Performance & Just Culture

- HP: The people side of process
 - Three-way checks
 - Near-miss reporting
 - Job hazard briefings /tailboards
- Just Culture: Handling HP in a fair & objective way
 - Human
 - At-Risk
 - Reckless



COO/CAO realignment



Kevin Howard



Tracey LeBeau

Staffing changes

- VP of IT – Network: Gary Harmon
- VP of Asset Management: Chris Lyles

Career broadening:

- DSW VP of Trans Sys AM Jimmy Kendrick switched with DSW VP of Power Marketing Jack Murray
- SN VP of Trans Sys AM Arun Sethi switched with SN VP of Power Marketing Sonja Anderson
- RM VP of Operations Darren Buck switched to VP of Trans Sys AM

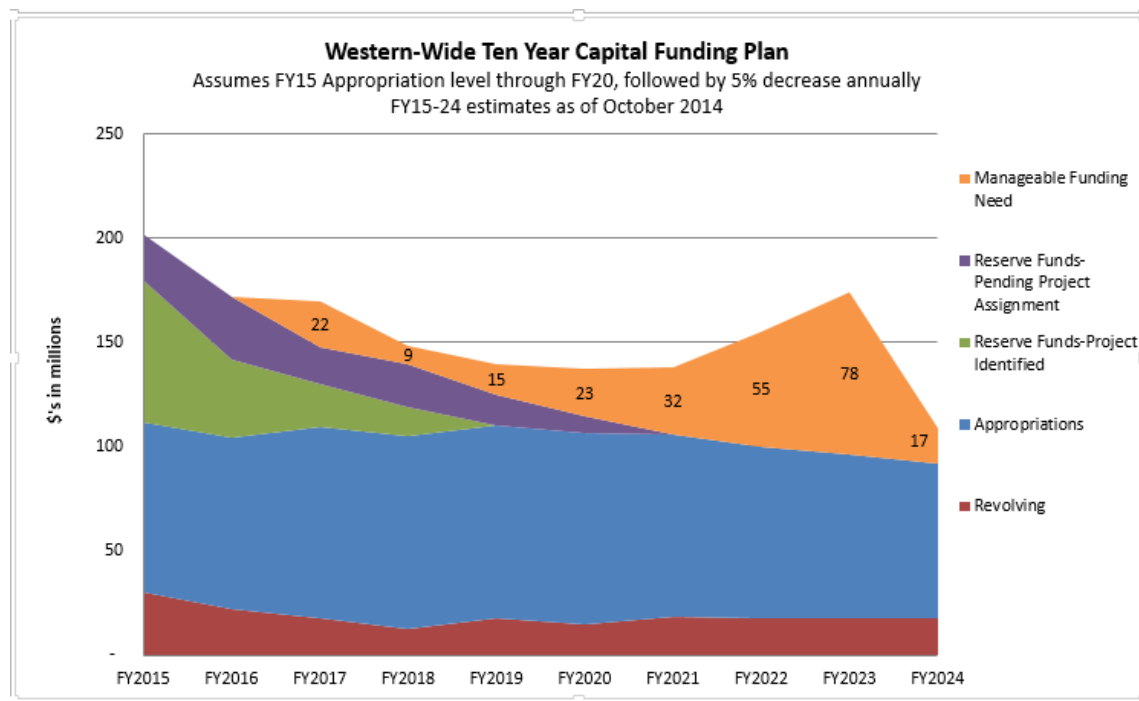
New RM regional manager



Senior VP and Rocky Mountain Regional Manager
Dawn Roth Lindell

What to expect

- Early predictions are coming to fruition
- Two sets of roundtable discussions



10-year roll up and appropriations from 2014 meeting

Contact/follow me

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[WesternAreaPower1](https://www.youtube.com/channel/UC...)



[westernareapower](https://www.instagram.com/westernareapower)



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Financial Strategy Update

Colin Marquez

Acting Senior VP and Chief Financial Officer

Financial strategies

- Reserve balances strategy progress
- Transparency update
- Fiscal Year 2021 strategic budget guidance

Reserve balances strategy

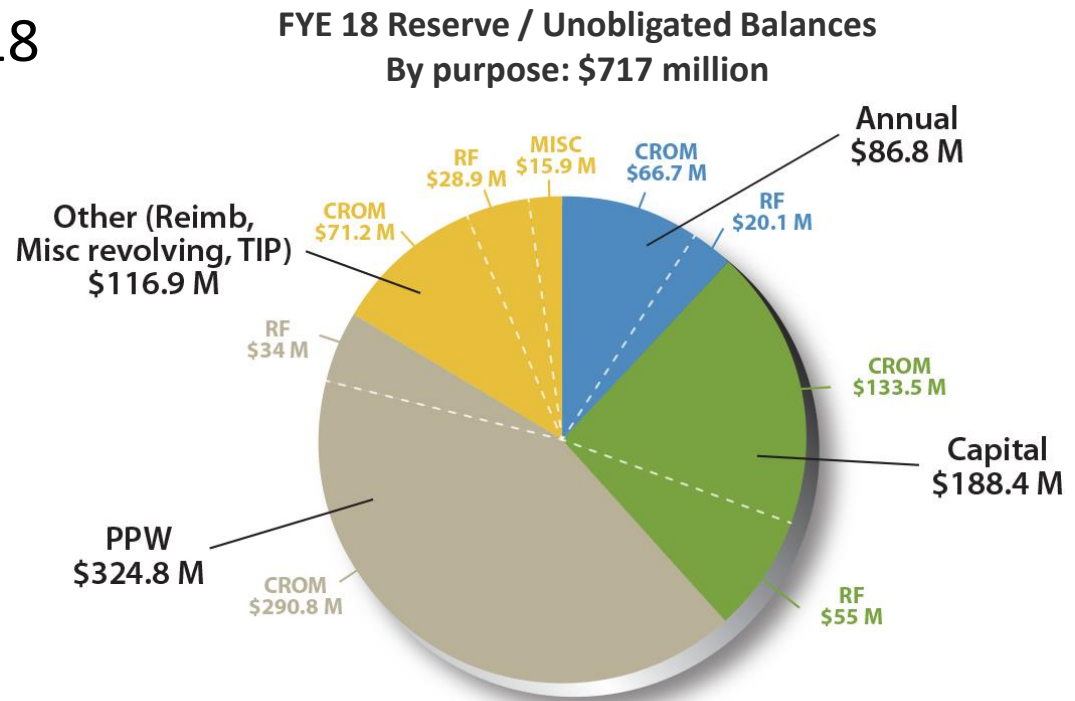
Sustainable funding tool in support of WAPA's mission

	Annual O&M	Capital funding	Purchase power & wheeling
Example	Salaries, supplies and equipment	Building new transmission lines and related structures	Buying power on behalf of customers when water conditions require it
Purpose	Allows WAPA to sustain operations during emergencies, continuing resolutions or lapses in appropriations	Provides funding in advance of starting capital construction projects and flexibility with schedule / priority changes in collaboration with customers	Improves both WAPA and customer cash management, allowing for continued funding of critical capital construction and maintenance projects
Strategy	Retain 31% of annual funding need	Retain sufficient funding to cover up to 3 years of capital investments	Retain 3 years estimated funding during drought

Carrying reserve balances does not impact power rates

Fiscal year-end 2018 reserve balances summary of all accounts

- Strategy progress: 2016-18
 - Annual: Reduced ~ \$64M
 - Capital: Reduced ~ \$182M
 - PPW: Increased ~ \$142M
- Returns to U.S. Treasury Reclamation Fund
 - 2016: \$328M
 - 2017: \$338M
 - 2018: \$266M



Planned FYE 18 targets/actions

CROM account strategies**

Program	FYE 18 Balance	Strategy Target
Annual O&M <ul style="list-style-type: none"> FY18 enacted budget authorized ~\$44M use of PY balance Target changes annually based on program year Use of PY balances through budget formulation as needed 	\$66.7M	\$68.5M
Capital <ul style="list-style-type: none"> Regions collaborate with customers on amount to retain Target changes annually based on rolling 10-year plans Returns to Treasury as needed 	\$133.5M	\$166.1M
Purchase Power & Wheeling <ul style="list-style-type: none"> Executed incremental increase of ~\$45M Reach target by FYE 2020 Requires solution to CBO budget authority “scoring” issue 	\$290.8M	\$393.0M

** Does not include CROM “Other,” CRBPMF, TIP, Falcon-Amistad, Emergency Fund

Transparency

- Created “The Source” in 2016
- Expanded financial data in May 2018
- Ongoing enhancements to capital and annual “work plan” reviews
- Programmatic insight



FY21 Administrator's budget guidance

- Investment drivers
- Assumptions / constraints

Read more:

[The Source – Budget Allocation](#)

Investment drivers

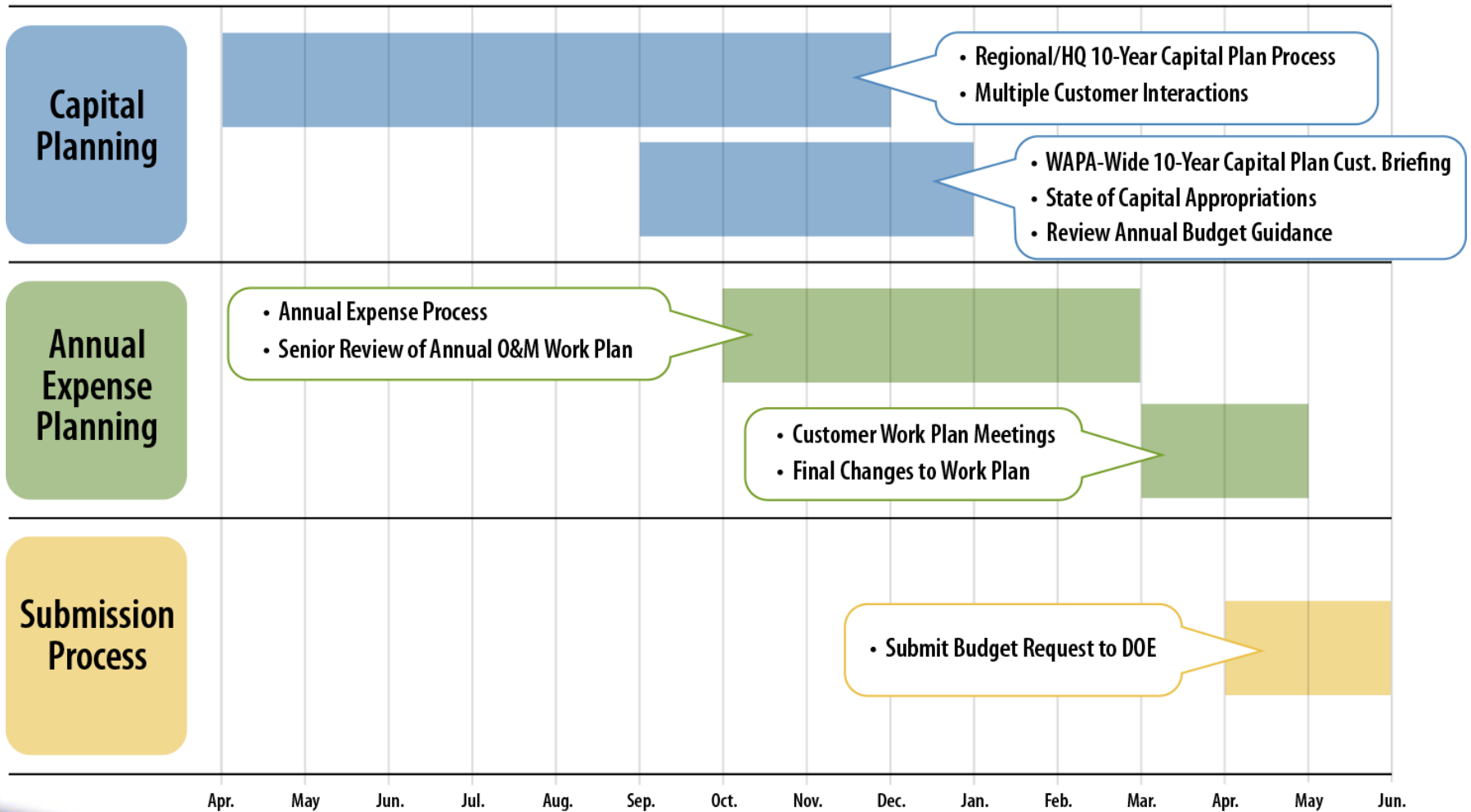


- Tactical Action Plan
- Strategic Target Areas
 - Mission-critical Customer Services in Evolving Industry
 - Asset Management 2.0
 - Grid Resilience
 - People and Organization

Assumptions / constraints

- Investment drivers must be offset
- FTE neutral
- Inflation at 2% for labor / non-labor
- Training and leadership development at 2% of payroll
- Increases over FY 2020 work plan require Administrator approval
- Physical security to meet risk assessments and remediation plans

Budget Timeline



WAPA 10-Year Capital Plan

Colin Marquez

Acting Senior VP and Chief Financial Officer

WAPA-wide Capital Plan overview

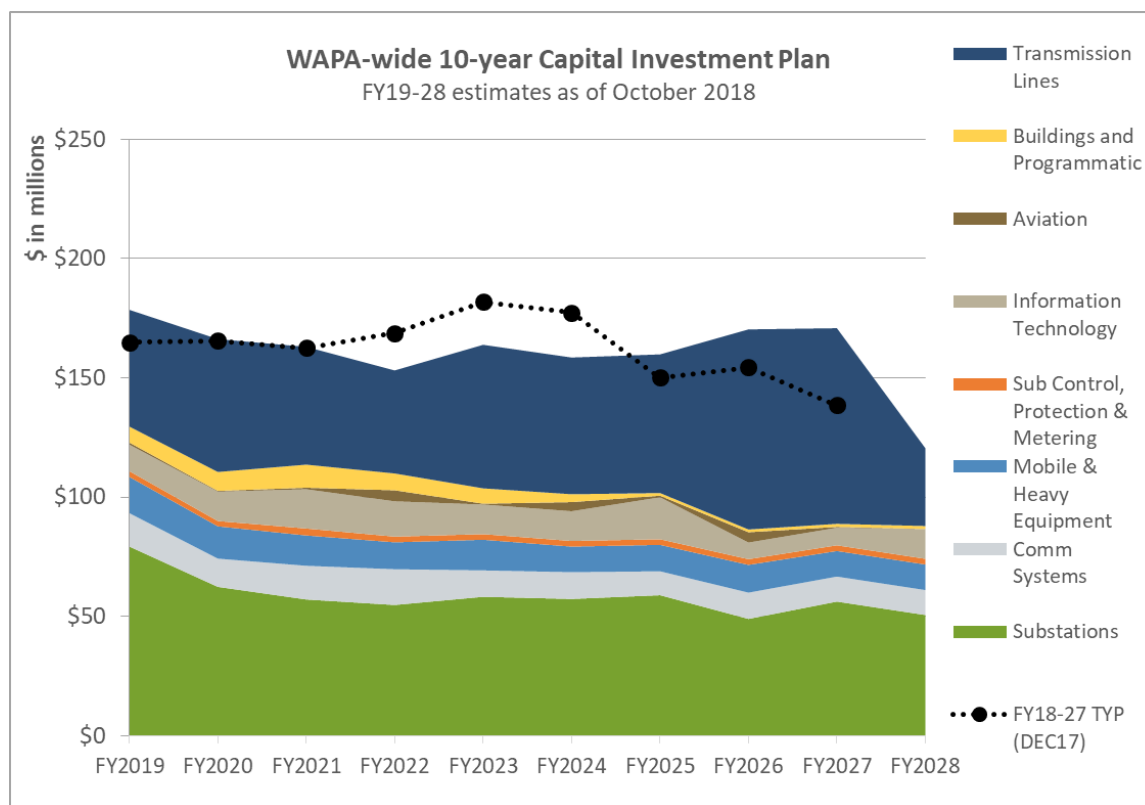
Fiscal Years 19–28

- Invest \$1.6B in transmission system
 - Decreased \$29M or 2%; Average \$160M/year
 - HQ plan: WAPA-wide vs. Regional allocations
 - Drivers
- Significant reimbursable work with customers and Federal partners
- Status of capital appropriations

WAPA-wide 10-Year Capital Investment Plan (by category)

Key Investment Drivers

- T-Lines = 36%
- Subs = 36%
- Comm = 7%
- IT = 8%
- Mobile/Heavy Equip = 8%
- Aviation = 1%

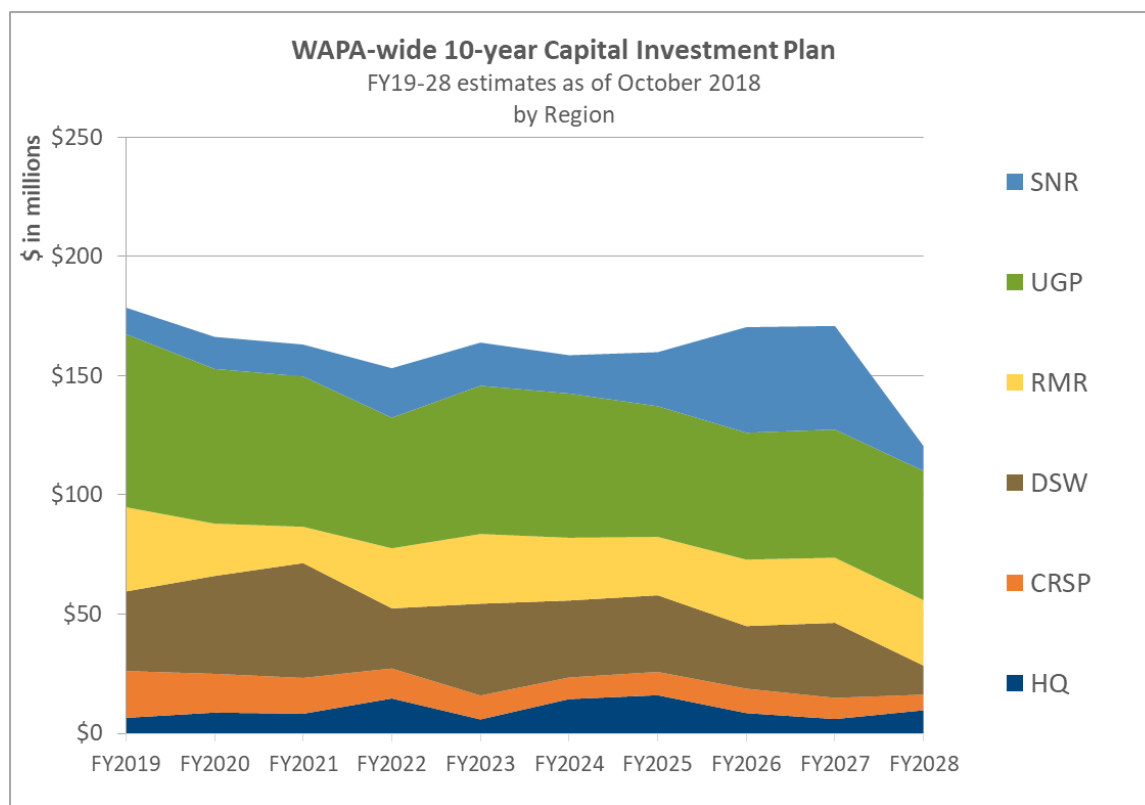


WAPA-wide 10-Year Capital Investment Plan (by region)

Change by Region

- CRSP -8% (-\$10.8M)
- DSW -4% (-\$13.0M)
- RM -3% (-\$6.7M)
- SN -2% (-\$3.3M)
- UGP +1% (+\$7.7M)
- HQ* -3% (-\$2.5M)

* HQ = WAPA-wide
Investments



What drives the plan?

- Safety and security
- Reliability through asset management
- IT lifecycle management and business needs
- Statutory and regulatory compliance

Work for Others

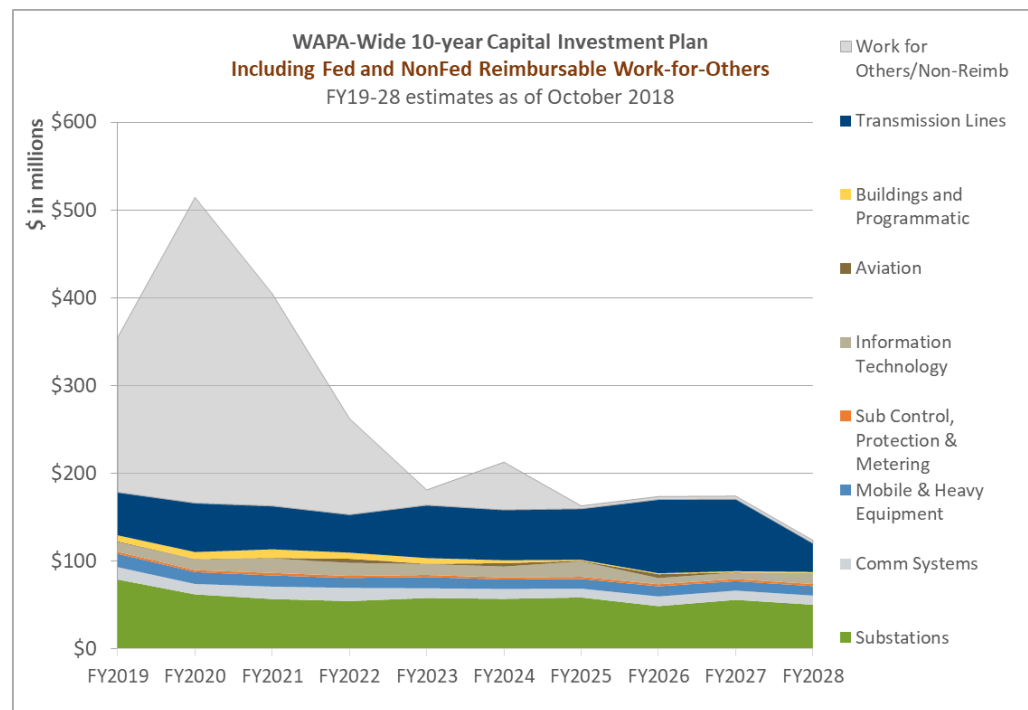
10-Year Capital Investment Plan

(by category)

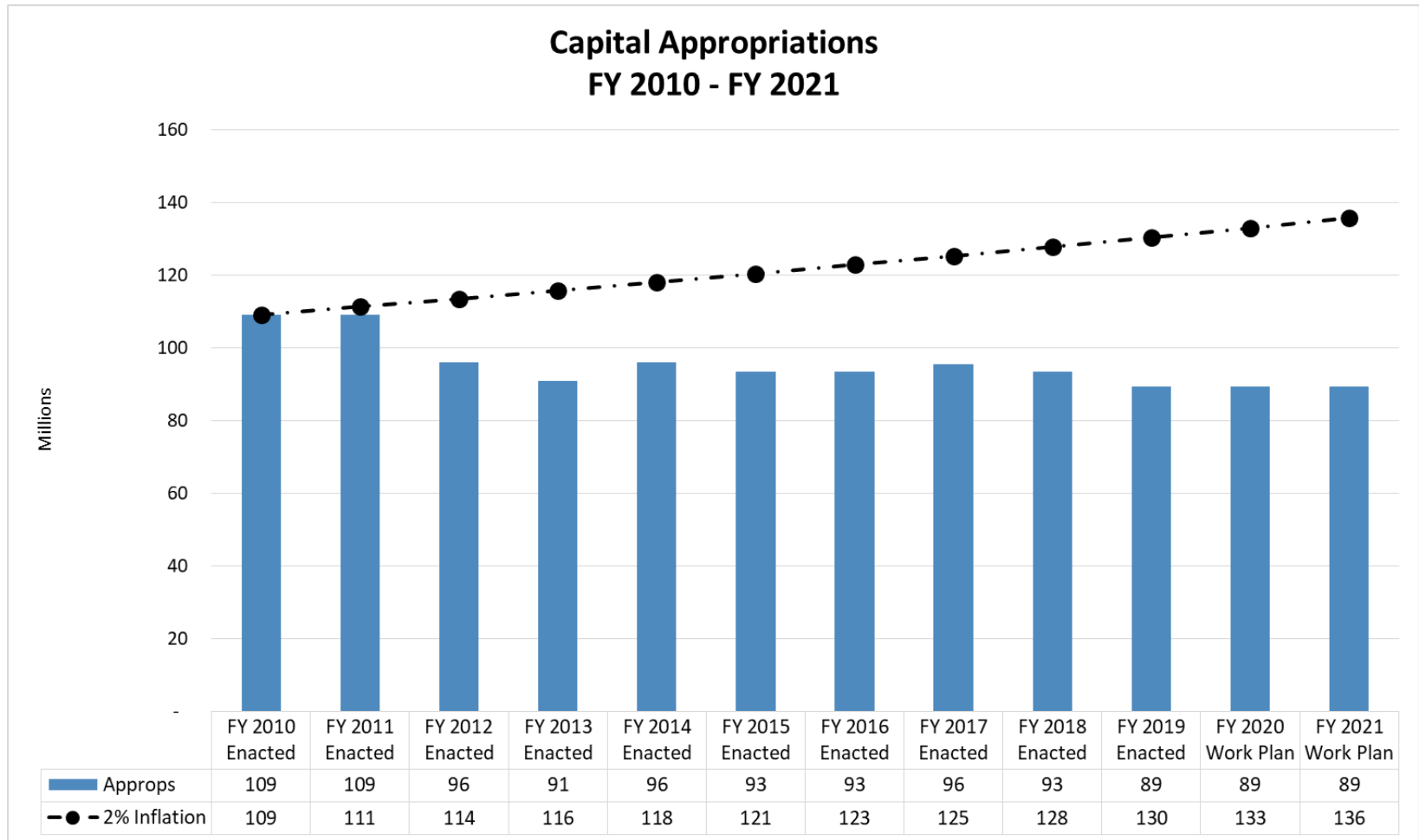
In addition to WAPA investment of **\$1.6B**, another **\$961M** in reimbursable Work for Others (WFO) is planned

Key Projects

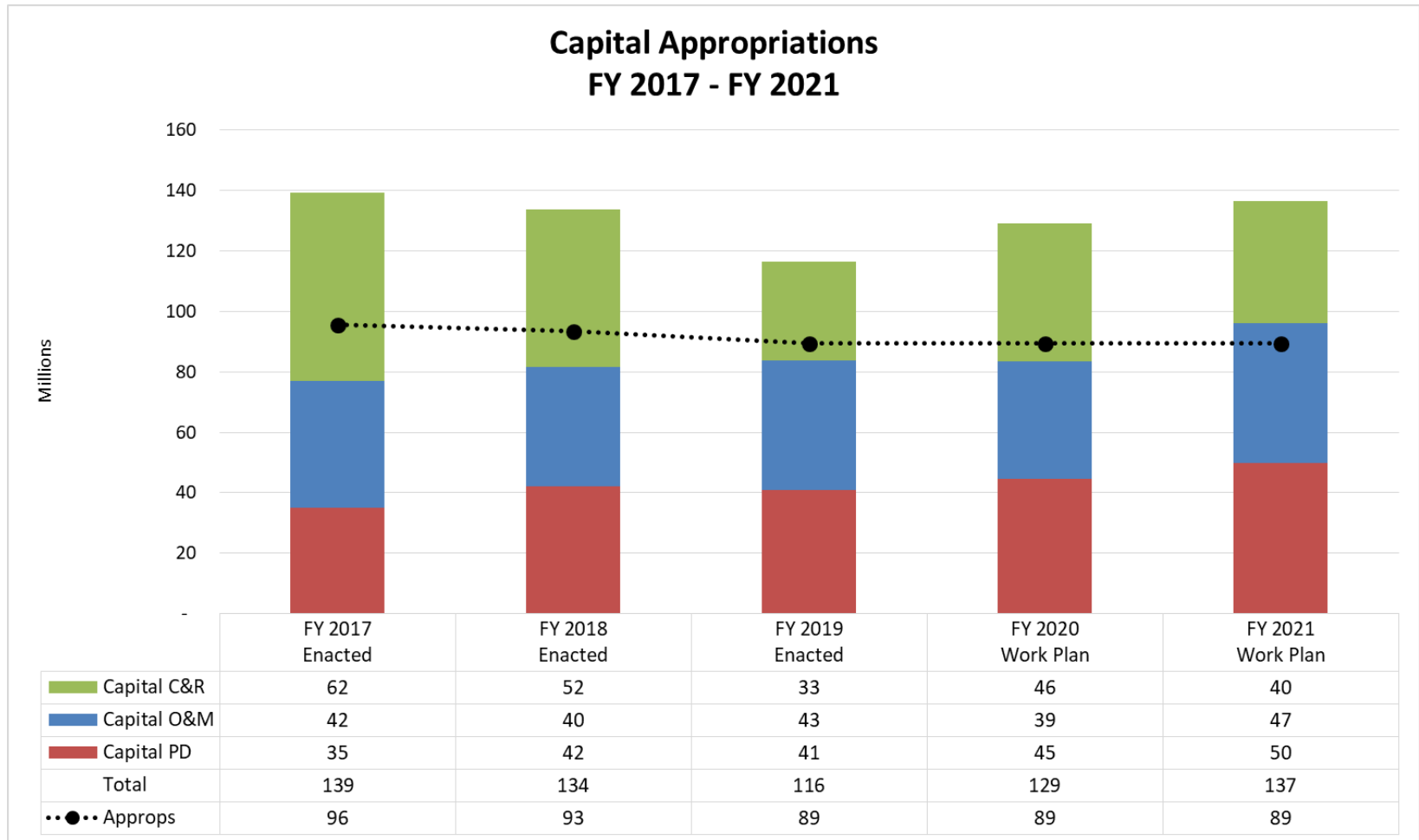
- **San Luis (SN)**
 - \$324M total project cost
 - FY19 \$114M, FY20 \$88M, FY21 \$64M, FY22-24 \$49M
- **Colusa Sutter (SN)**
 - \$263M total project cost
 - FY19 \$1M, FY20 \$66M, FY21 \$98M, FY22-24 \$94M
- **Southline (DSW)**
 - \$202M total project cost
 - FY19 \$10M, FY20 \$152M, FY21 \$30M, FY22-23 \$10M



Status of appropriations



Status of appropriations



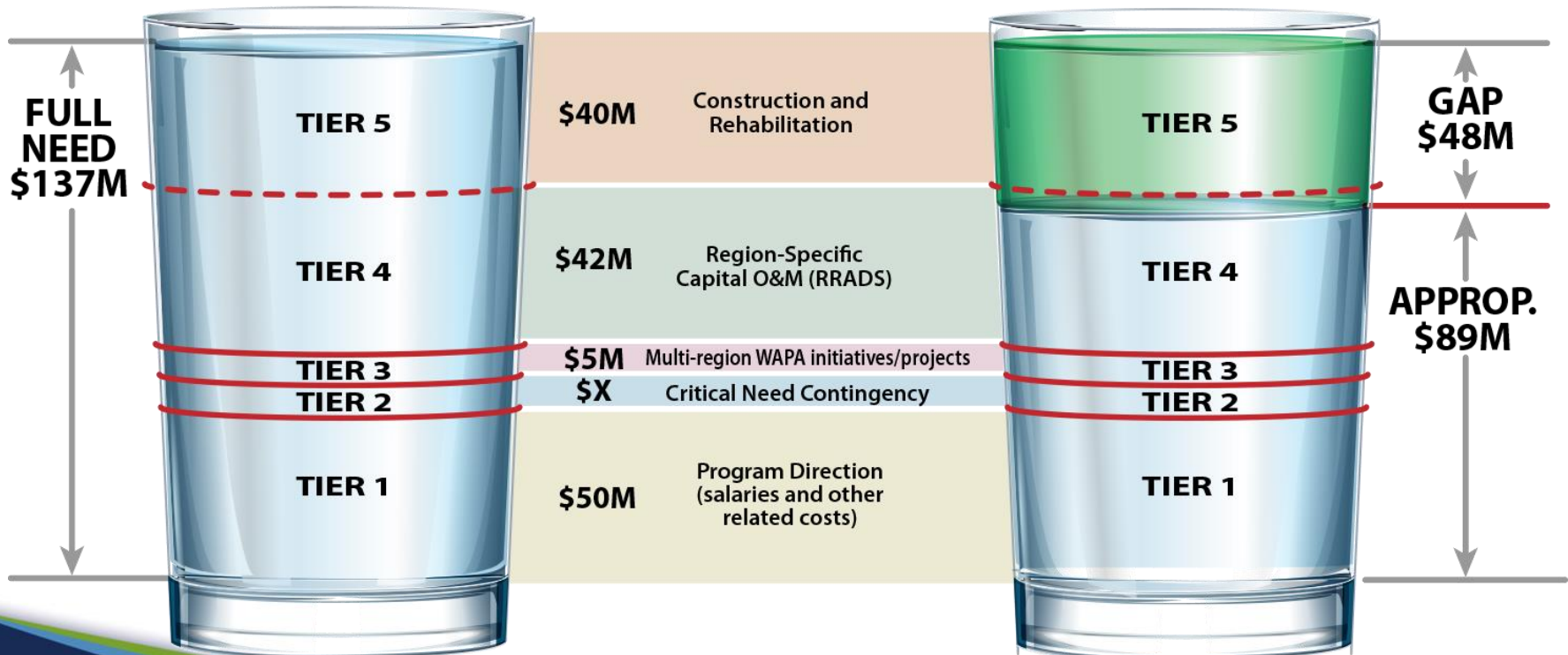
Status of appropriations

- Continued pressure on appropriation levels
- FY21: Currently formulating budget request
 - \$0 appropriations anticipated for C&R
 - \$8M appropriation shortfall anticipated for capital O&M
- C&R average appropriation over last 5 years:
~\$8.3M/year

Capital appropriations allocation planning in FY 2017

- Issue – declining appropriations & increased costs of maintaining system requires a process for funding allocation decisions
- Approach – assembled team to develop process & recommendations
- Input – received customer input in February 2017 and posted final plan in June 2017
([Plan posted on The Source](#))

Capital appropriations allocation plan



Total Capital Committee (TCC)

Purpose

- Develop recommendations by early March

WAPA participants

- Cross-regional
- Cross-functional
- Subject matter experts

Decision criteria

- Ability to execute
- Cash flow
- Customer bill limitations
- Project risk

- **SLIDES FOR REFERENCE ONLY**

CRSP MC

10-Year Capital Investment Plan

(by category)

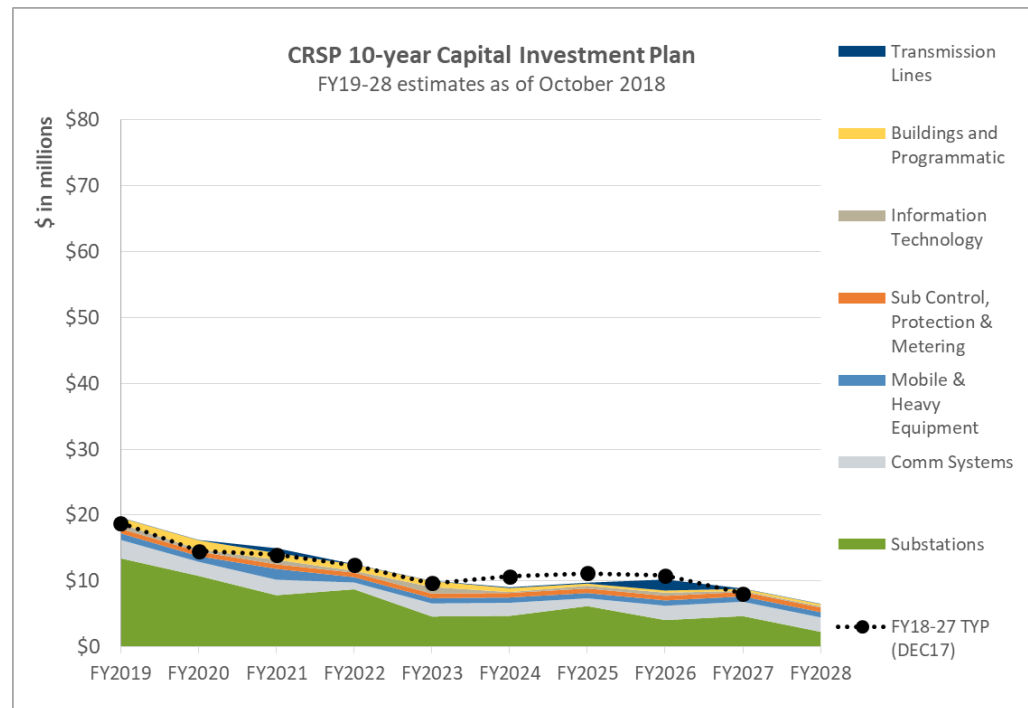
- Invest **\$118M** in transmission system, FY19-FY28
 - Decrease of **\$10.8M** from FY18-27 (Dec. 2017) plan

Key Investment Drivers

- Subs – 57%
- Comm – 17%

Key Projects

- Ault 345/230-kV transformer replacement - \$7.8M
- Blue Mesa reactor and 115/12.47-kV transformer replacement - \$5M
- Pinnacle Peak shunt capacitor bank replacement - \$10.5M



DSW

10-Year Capital Investment Plan

(by category)

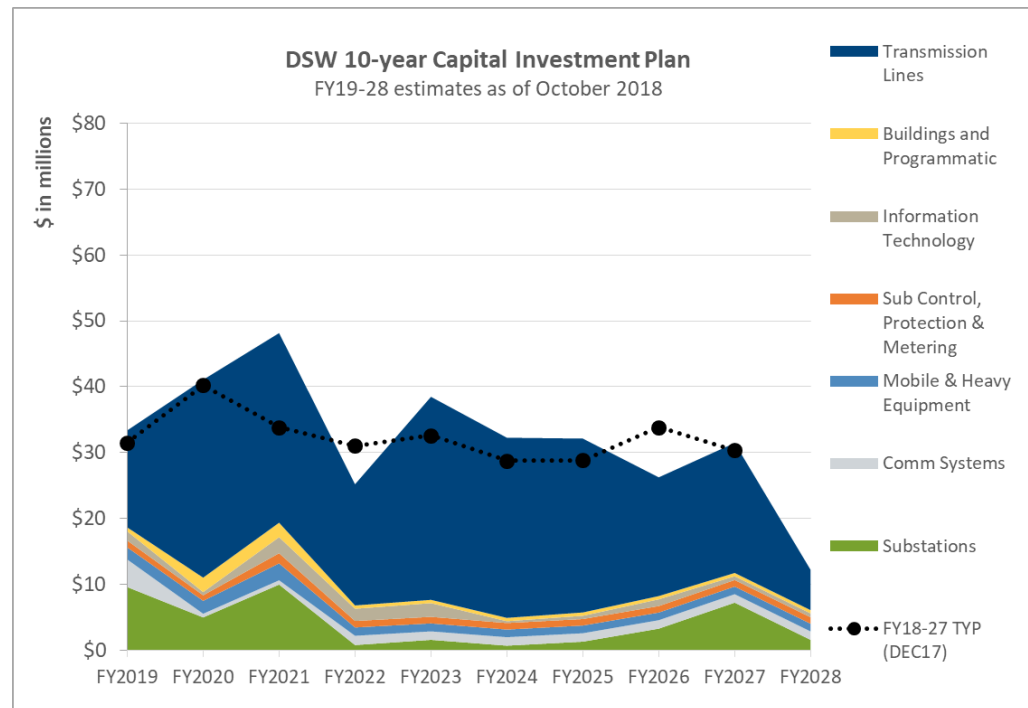
- Invest **\$321M** in transmission system, FY19-FY28
 - Decrease of **\$13M** from FY18-27 (Dec. 2017) plan

Key Investment Drivers

- T-Lines – 69%
- Subs – 13%

Key Projects

- Gila Substation rebuild - \$3M
 - Improves reliability of Yuma area transmission system
 - Improvements on aged components
- Bouse-Kofa rebuild - \$27M
 - Addresses NERC violations
 - Replaces 82 wood poles in poor health



RM

10-Year Capital Investment Plan

(by category)

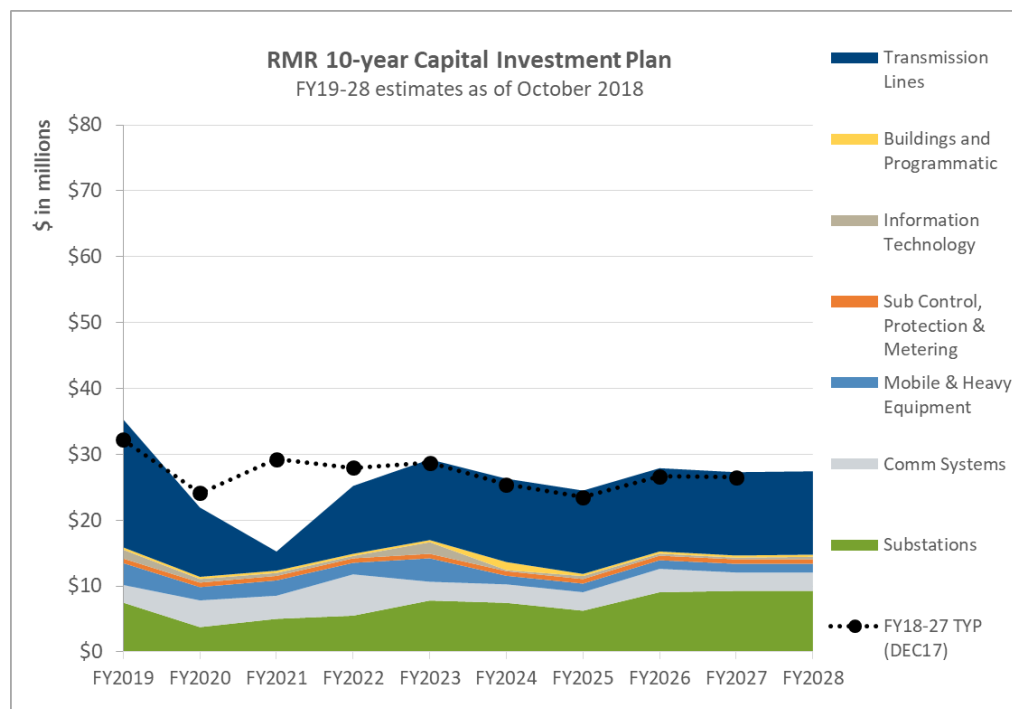
- Invest **\$260M** in transmission system, FY19-FY28
 - Decrease of **\$6.7M** from FY18-27 (Dec. 2017) plan

Key Investment Drivers

- T-Lines – 46%
- Subs – 27%
- Comm – 13%

Key Projects

- Estes-Flatiron Transmission Line rebuild - \$19.5M
- Lovell-Yellowtail Transmission Line rebuild (Phase III) - \$10.3M



SN

10-Year Capital Investment Plan

(by category)

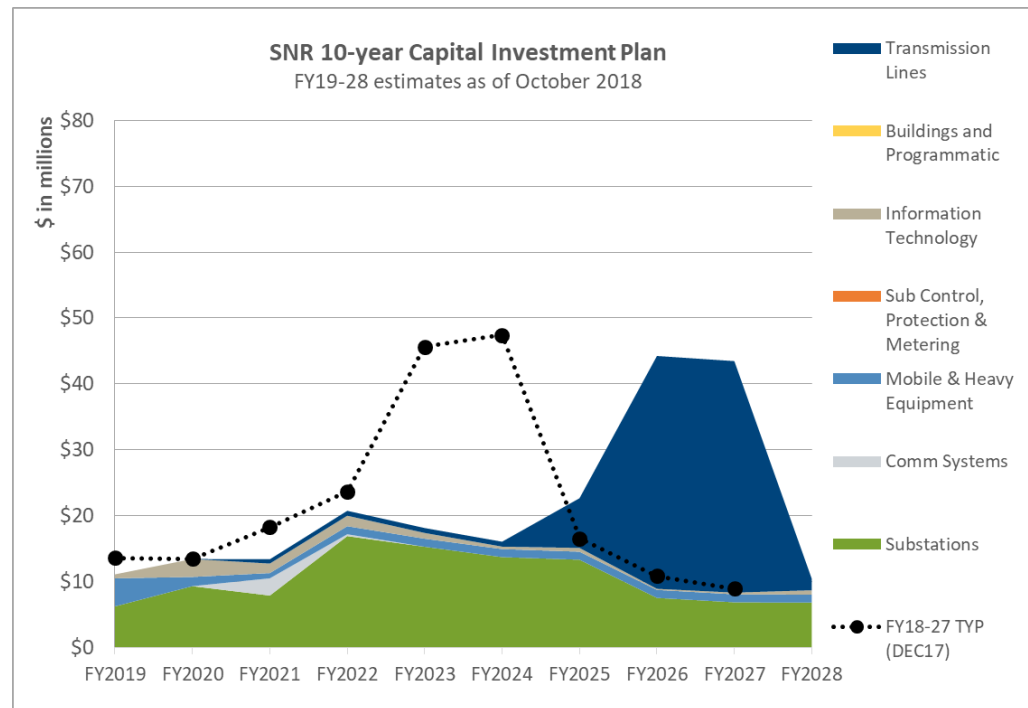
- Invest **\$214M** in transmission system, FY19-FY28
 - Decrease of **\$3.3M** from FY18-27 (Dec. 2017) plan

Key Investment Drivers

- Subs – 49%
- T-Lines – 39%

Key Projects

- Substation Service upgrades (7 substations) - \$13.94M
- Folsom Office Station Service - \$3.52M
- Keswick Airport Cottonwood Substation upgrade - \$3.14M
- Folsom Transformer Project - \$4.21M



UGP

10-Year Capital Investment Plan

(by category)

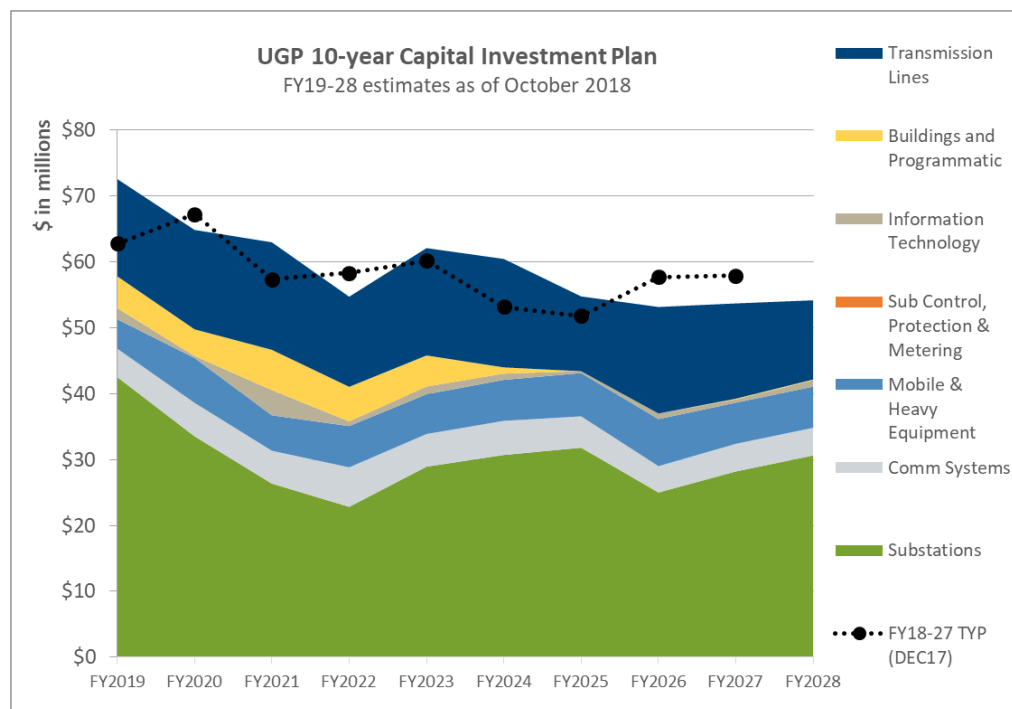
- Invest **\$594M** in transmission system, FY19-FY28
 - Increase of **\$7.7M** from FY18-27 (Dec. 2017) plan

Key Investment Drivers

- Subs – 51%
- T-Lines – 25%
- Mobile/Heavy Equip – 10%

Key Projects

- Priority on moveable property replacements up 30% - 63 major pieces scheduled replacement by 2025
- Keystone sites are included for planning, but work is pending at most locations



HQ-managed (WAPA-wide) 10-Year Capital Investment Plan

(by category)

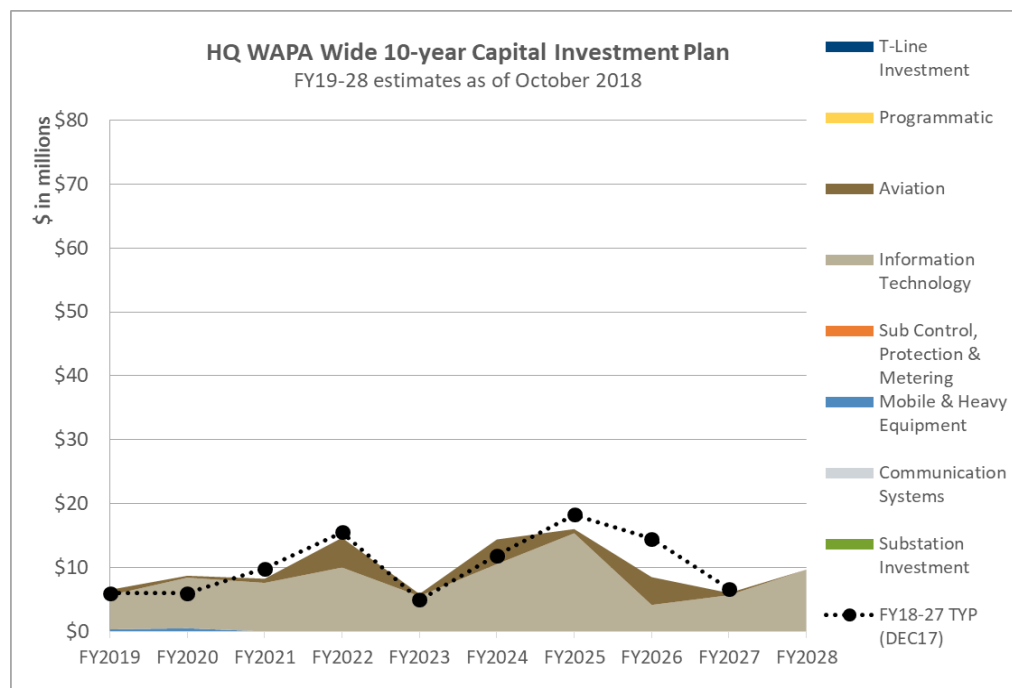
- Invest **\$99M** in transmission system, FY19-FY28
 - Decrease of **\$2.5M** from FY18-27 (Dec. 2017) plan

Key Investment Drivers

- IT – 83%
- Aviation – 16%

Key Projects

- Common SCADA/EMS vendor
 - \$12.5M FY19-21 & FY23
- Power Billing software
 - Updated estimate of \$6M FY24-FY25



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Asset Management Program Update

Chris Lyles
VP of Asset Management

Topics for discussion today

- T-line structures as assets
- Transformer acquisition process
- Transformer strategy for high-impact low frequency (HILF) events



Transmission line assets

- Asset Management formally launched in 2015
- 581 transmission line segments considered assets
- Age was used for determining health
- 178,000 individual structures are now assets
- Individual structure condition determines health



Transformer acquisition process

- Goal: Reduce lead-time from 24 months to 9-12 months
- Team interviewed 3 transformer vendors
- Long-term contract with standard specifications
- Improved process for typical capital replacements and emergency needs
- Timeframe for implementation

Transformer strategy for HILF events

- Scope and methodology for strategy
- WAPA-wide mitigation vs. regional
- Anticipated path forward
- Anticipated outcome: Purchase and store
 - Partner with other utilities
 - Rely on new acquisition strategy

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Power Repayment Study Software Update

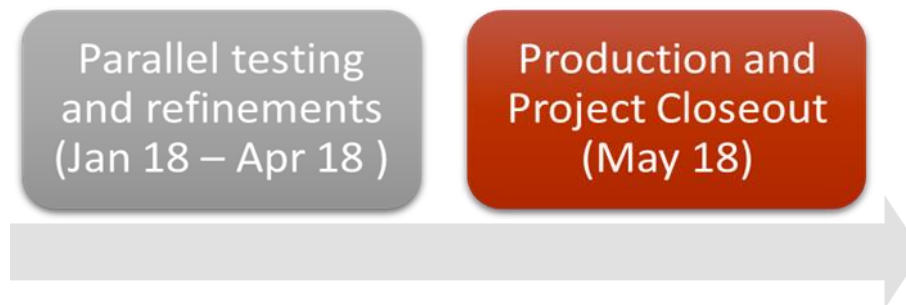
**Rodney Bailey
Power Marketing Advisor**

Power Repayment Study completion

- On time and within budget
- Project closeout on May 3, 2018
- Total cost \$3.85M vs. estimated \$3.99M
- All 15 WAPA Power Systems are using the new platform for 2018 final PRS

Validation process

- Validate against FY 2016 final studies
- Roll forward and parallel testing with FY 2017 studies
- Roll forward FY 2018 parallel testing
- Use new software for FY 2018 studies



Responses from users

- “The new platform is excellent and a monumental leap forward for the PRS.”
- “A great balance of versatility, data integrity, and usability.”
- “Data entry is a snap. Users can upload, hand input, or cut and paste data. No more checking links and correcting formulas.”
- “All regions are on the same page and using standard methodologies.”
- “The process was open and flexible so everyone could participate. This helped gain user buy-in, produce a better platform, and develop the next generation of PRS experts.”

We met our goals

- WAPA-wide single platform
- Sustainable for next 15-20 years
- Customer access
- Transparent and auditable
- Built-in data validation functions
- Compliant with DOE and WAPA policies



Contact

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Roundtable Discussion Kick-off

Jennifer Rodgers
Chief Strategy Officer

Roundtable discussions

- Two rounds of open discussion
 - 30 minutes of discussion
 - 10 minutes report out
- Both rounds have the same topics; select the topic of your choice for each round
- Two WAPA leaders at each table to kick off discussions

Roundtable topics

- Renewables and Energy Storage
- Markets and WAPA's Role
- Cost Management
- Customer Communications

Closing Remarks

Mark A. Gabriel

Administrator and Chief Executive Officer